SUB-SYMBOL PARALLEL INTEFERENCE CANCELLATION

ABSTRACT of the DISCLOSURE

Reduction of multiple access interference, in one example for asynchronous CDMA systems using long codes. In one aspect, parallel interference cancellation (PIC) implements a decoupled estimate, preferably non-linear and applied at chip intervals. According to another aspect, interference is cancelled using a technique that estimates bits for a symbol by interpolating signature waveforms for users to a common sampling lattice of the received data. According to another aspect, multi-stage, hybrid multi-stage, and reconfigurable recursive multi-stage multi-user detection architectures and corresponding processes are provided.